

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

*What is claimed is:*

CLAIMS

1. A ramp for the loading and unloading of a slider, comprising:  
a body having a first surface and a second surface and a plurality of apertures extending between said first and second surfaces, wherein each of said plurality of apertures has a first opening at said first surface and a second opening at said second surface, wherein said first surface has a sloped segment and a straight segment, said sloped segment being acutely angled with respect to said second surface.
2. The ramp of claim 1, wherein said second surface has a non-planar component.
3. The ramp of claim 2, wherein said second surface has an aerodynamic shape to urge air flow into said plurality of apertures.
4. The ramp of claim 2, wherein said second surface is concave.
5. The ramp of claim 1, wherein cross-sectional areas of said first and second openings are substantially equal.
6. The ramp of claim 1, wherein said cross-sectional area of said first opening is less than said cross-sectional area of said second opening.
7. The ramp of claim 1, wherein at least one of said plurality of apertures intersects said second surface at an angle to a tangent of said second surface at said second opening.

8. The ramp of claim 1, wherein at least one of said plurality of apertures has a first opening within said straight segment of said first surface.

9. The ramp of claim 1, wherein at least one of said plurality of apertures has a second opening that connects to more than one first opening.

10. A ramp system for loading and unloading two sliders, comprising:  
a body having a first portion and a second portion, each said portion including a first surface and a second surface and a plurality of apertures extending between said first and second surfaces, wherein each of said plurality of apertures has a first opening at said first surface and a second opening at said second surface, wherein said first surface has a sloped segment and a straight segment, said sloped segment being acutely angled with respect to said second surface,

wherein said first portion is proximate to a first surface of a disk and said second portion is proximate to a second surface of said disk.

11. A disk drive for storing and retrieving magnetic data, comprising:  
a housing;  
a rotatable magnetic disk disposed within said housing;  
an actuator disposed within said housing and configured to pivot a load beam proximate to a surface of said magnetic disk;  
a slider attached to said load beam;  
a tab attached to said load beam, said tab extending said load beam in a first direction; and

a ramp including a body having a first surface and a second surface and a plurality of apertures extending between said first and second surfaces, wherein each of said plurality of apertures has a first opening at said first surface and a second opening at said second surface, said ramp situated such that said tab engages a sloped segment of said ramp as said load beam is brought to an outside diameter of said surface of said magnetic disk.

12. The disk drive of claim 11, wherein said tab has a surface facing said ramp, said surface having a non-planar component.

13. The disk drive of claim 11, wherein said tab has a surface facing said ramp, said surface having an aerodynamic shape to urge air flow into said plurality of apertures.

14. The disk drive of claim 11, wherein said tab has a surface facing said ramp, said surface being concave.

15. A method for loading a slider, comprising:  
providing a rotatable magnetic disk disposed within a housing;  
providing an actuator disposed within said housing and configured to pivot a load beam proximate to a surface of said magnetic disk;  
providing a slider attached to said load beam;  
providing a tab attached to said load beam, said tab extending said load beam in a first direction;

providing a ramp including a body having a first surface and a second surface and a plurality of apertures extending between said first and second surfaces, wherein each of said plurality of apertures has a first opening at said first surface and a second opening at said second surface, said ramp situated such that said tab engages a sloped segment of said ramp as said load beam is brought to an outside diameter of said surface of said magnetic disk;

rotating said magnetic disk thereby providing an air flow through said plurality of apertures;

pivoting said load beam including said tab attached thereto, wherein said air flow through said plurality of apertures provides a lifting force to said tab as it moves with respect to said ramp, said tab moving from a straight segment of said ramp to a sloped segment of said ramp; and

flying said slider such that said tab disengages from said ramp.

16. The method of claim 15, wherein said lifting force is sufficient to lift said tab off of said ramp such that said tab is provided with an air bearing as it moves with respect to said ramp.

17. A method for unloading a slider, comprising:

providing a rotating magnetic disk disposed within a housing;

providing an actuator disposed within said housing and configured to pivot a load beam proximate to a surface of said magnetic disk;

providing a slider attached to said load beam, said slider flying over said surface of said disk;

providing a tab attached to said load beam, said tab extending said load beam in a first direction;

providing a ramp including a body having a first surface and a second surface and a plurality of apertures extending between said first and second surfaces, wherein each of said plurality of apertures has a first opening at said first surface and a second opening at said second surface, wherein said rotating disk provides a flow of air through said plurality of apertures;

pivoting said load beam including said tab attached thereto, such that said tab engages a sloped segment of said ramp as said load beam is brought to an outside diameter of said disk;

moving said tab over said sloped segment of said ramp and onto said straight segment of said ramp, whereby said flow of air through said plurality of apertures provides a lifting force to said tab; and

reducing said rotation of said disk, thereby reducing the flow of air through said plurality of apertures so that said lifting force is reduced, such that said tab may be supported on said straight segment of said ramp.

18. The method of claim 17, wherein said lifting force while said tab is moving relative to said ramp is sufficient to keep said tab off of said ramp so that said tab is provided with an air bearing as it moves.